

1 IN THE CLAIMS

2 (Clean version of the amended claims)

3 Please amend the claims as follows:

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5 --23. An improved time of flight mass spectrometer comprising:

6 a multideflector for deflecting ions from an ion path

7 consisting of more than two bipolar deflection plates each

8 comprising a pair of metal plates separated from one another by

9 an insulator, said bipolar deflection plates being arranged

10 across said ion path in such a way that, during a given passage

11 through said multideflector, each of said ions must pass between

12 two and only two adjacent bipolar deflection plates; and

13 a detector for detecting said ions;

14 wherein each of said metal plates is energized to a

15 potential and the potentials of the metal plates of each pair

16 have opposite polarities.

17

18 34. An improved time of flight mass spectrometer according to

19 claim 31 wherein the distance between adjacent bipolar deflection

20 plates varies as a function of position within the

21 multideflector.

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1 35. An improved time of flight mass spectrometer according to
2 claim 34 wherein the bipolar deflection plates are curved.

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4 36. An improved time of flight mass spectrometer according to
5 claim 23 wherein the potentials on the conducting electrodes is
6 held constant.

7
8 37. An improved time of flight mass spectrometer according to
9 claim 23 wherein the potentials on the conducting electrodes is
10 varied as a function of time.

11
12 38. An improved time of flight mass spectrometer according to
13 claim 32 wherein the potentials on the conducting electrodes is
14 held constant.

15
16 39. An improved time of flight mass spectrometer according to
17 claim 32 wherein the potentials on the conducting electrodes is
18 varied as a function of time.

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20 42. A multideflector according to claim 41 wherein the total
21 thickness of each bipolar deflector plate is in order of 0.1 mm.

1 43. A multideflector according to claim 41 wherein the insulator
2 consists of polyamide layer.

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4 44. A multideflector according to claim 42 wherein the insulator
5 consists of polyamide layer.

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7 45. A multideflector according to claim 41 wherein the bipolar
8 deflection plates are curved.

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10 46. A multideflector according to claim 42 wherein the bipolar
11 deflection plates are curved.

B
12
und.
13 47. A multideflector according to claim 43 wherein the bipolar
14 deflection plates are curved.

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16 48. A multideflector according to claim 44 wherein the bipolar
17 deflection plates are curved.

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19 49. A multideflector according to claim 41 wherein the bipolar
20 deflection plates are placed adjacent and parallel to one another
21 such that each metal plate of every bipolar deflection plate is
22 facing the metal plate of the adjacent bipolar deflection plate
23 which has the opposite polarity.

1 50. A multideflector according to claim 49 wherein the distance
2 between adjacent bipolar deflection plates is a constant.

3
4 51. A multideflector according to claim 50 wherein the bipolar
5 deflection plates are curved. --
